



F A Q

Reducing Climate Change Emissions From Motor Vehicles

Isn't there considerable doubt in the scientific community over whether global climate change is really happening?

No. An ever - increasing body of scientific evidence attributes climate change to greenhouse gases, particularly those generated from the use of fossil fuels.

Who gave the California Air Resources Board (ARB) the authority to lower greenhouse gases from motor vehicles?

In July of 2002 Gov. Gray Davis signed Assembly Bill 1493, authored by Assemblywoman Fran Pavley, directing the ARB to achieve the maximum feasible and cost-effective reduction of greenhouse gases from California's motor vehicles.

Since global warming is a worldwide problem and not a regional phenomenon, why is California taking the lead in this effort rather than allowing the federal government to handle it?

California has a history of taking the lead in environmental protection, and climate change can have serious regional consequences on our health and economy. More than 30 percent of California's climate change pollutants come from automobiles. California's efforts establish a policy that can serve as a guideline for later U.S. efforts and possibly for efforts by other nations to reduce climate change emissions.

Will ARB's attempts to reduce climate change emissions result in some types of automobiles being banned?

No. The legislation directing ARB to reduce climate change emissions from motor vehicles explicitly prohibits the banning of any vehicle category, including SUVs, vans or pickup trucks.

Could ARB use limits or taxes on the amount of miles a person drives, additional fees on the purchase of new vehicles or increased gasoline taxes as a way to force reduced use of motor vehicles and thereby reduce greenhouse gases?

No. Once again, ARB is prohibited from imposing any such limits, taxes or fees.

Could a reduction in the California speed limit be used as a way to reduce climate change emissions?

No. ARB is explicitly prohibited from setting or reducing vehicle speed limits.

Could ARB require mandatory carpooling as a way to reduce vehicle trips and cut climate change pollution?

No. ARB does not have authority to require carpooling.

Doesn't the law require ARB to rigidly force auto manufacturers to achieve the absolute maximum reduction of greenhouse gases?

No. The law requires that the reductions be "feasible", which it defines as "capable of being successfully accomplished within the time provided by this section, taking into account environmental, economic, social, and technological factors". The law also requires that the reductions be "cost effective", which it defines as "economical to an owner or operator of a vehicle, taking into account the full lifecycle costs of a vehicle". In addition, the law directs ARB to consider economic impacts, including impacts on jobs, businesses, and California business competitiveness with other states. Finally, the law requires ARB to grant flexibility to manufacturers, allowing them to suggest alternative approaches that would achieve equivalent emission reductions.

Could the changes needed to reduce climate change emissions lead to vehicles that are smaller and significantly less powerful than those now on the road?

No. According to the National Academy of Sciences, vehicles do not have to be smaller and less powerful to reduce greenhouse gas emissions.

How much time do automakers have to comply with the regulation?

The ARB is to have a regulation prepared by 2005. Reduction of greenhouse gases is scheduled to start with 2009 model year automobiles. This will allow enough time for manufacturers to make the needed changes.

What type of technologies must automakers develop to reduce greenhouse gases?

Actually, technology that has already been developed and is currently in use on some cars can result in significant improvement. Minor adjustments to catalytic converters and air conditioning systems can help reduce greenhouse gases such as nitrous oxides and HFCs, while existing technology already being used in some automobile engines, transmissions, tires, aerodynamics and other areas could bring reductions of carbon dioxide. Future reductions may come from an increasing use of fuel cell vehicles.

What procedure will ARB follow in passing this regulation?

The ARB will use a procedure similar to that used in creating other ARB regulations. There will be a series of workshops and informational meetings soliciting comments and input from auto manufacturers, environmental groups, the scientific community and anyone else who has an interest in the issue. The regulation must be adopted by a vote of ARB's Board by January 1, 2005. The regulation must not take effect prior to January 1, 2006 and may not apply to any vehicles manufactured prior to the 2009 model year. The state legislature will hold at least one public hearing prior to the new rules taking effect, and it has the authority to adopt legislation to

modify the regulations if it chooses to do so.

How can climate change emissions bring California higher levels of smog?

Ozone is one of the most health-damaging components of urban smog. One of the key links in ozone formation occurs when the sun heats pollutants in the air. The higher temperatures brought about by climate change facilitate and speed up the process of ozone formation. This process can also contribute to the formation of more health-damaging particulate matter in the air.

What other negative effects could climate change emissions have on California?

There are many:

- Warming would raise the elevation of snow levels and reduce spring snowmelt.
- Less snowmelt runoff would mean lower water supplies for cities, farms and industry and less hydroelectric power production.
- Sea level rise would affect the Sacramento/San Joaquin Delta, worsening existing levee problems and causing more saltwater intrusion.
- Rising sea levels would adversely affect many other coastal marshes and wildlife reserves, and could lead to property damage in coastal areas.
- Lower summer reservoir levels would adversely affect watersports and other recreation.
- Higher temperatures and reduced snowmelt will compound the problem of providing suitable water habitat for salmon and other cold water fish species.
- Higher temperatures will increase the demand for water by agricultural crops.
- Regional climates that are hotter and drier could bring increased pest and insect epidemics and more fires within California's forests.
- Hotter summer temperatures will increase use of air conditioners and raise peak electricity demand, leading to a need for increased power production.

For More Information:

Call our Public Information Office at (916) 322-2990 or visit our website at www.arb.ca.gov